Deliverable Acceptance Form

Date: 5/10/05

PROJECT IDENTIFICATION

Project Name: STAGEnet Infrastructure Services

Project Sponsor(s): Jerry Fossum

Project Manager: Dirk Huggett

DELIVERABLE INFORMATION

Project Phase: Phase 1

Deliverable Name: Procurement Strategy Document

Author: Federal Engineering

ACCEPTANCE CRITERIA

Criteria:

This is the final report that outlines the strategy to be used to release the RFPs for the project. It will include a high-level outline, plan, and the reasoning's behind the choices being recommended.

Accept / Reject (If rejected, provide reasons below)

Signature: Jerry Fossum **Date:** 5-10-05

Jerry Fossum, Telecommunications Director

Attachments: Final Procurement Document

STAGENet 2006

Procurement Strategy

May 5, 2005

Proposed Procurement Strategy

Background:

The State of North Dakota Information Technology Division (ITD) currently supports a statewide wide area network under the name STAGENet (Statewide Technology Access for Government and Education). This network provides wide area network services for State/local government agencies, political sub-divisions, higher education and K12 schools. It will also provide the network infrastructure services and components connecting other participants required to perform business with these entities, such as, the State's constituents, tribal colleges, the state's hospital network, and more.

Current contracts are set to expire in June 2006. ITD has developed a 7 – 10 year Vision for the telecommunications infrastructure that is expected to not only meet but exceed current requirements and expectations, as well as remain flexible and provide the necessary scalability required for the years to come. E-Rate and outdated market pricing are two important factors driving this procurement effort and ITD has taken this opportunity to expand the State's telecom capabilities to include high-speed access to the major centers in the state as well as anytime/anywhere connectivity statewide.

Proposed Strategy

Several alternative approaches were considered in the development of this strategy. After meeting with many potential vendors for these services, it was a consensus of the FE team and the State that the procurement strategy should include separate RFPs for transport, equipment and wireless services. This approach will allow the many different considerations to be taken into account, including business drivers, functional and technical requirements, procurement and implementation timelines, and the development of the RFPs and the supporting evaluation criteria. It is also part of the strategy to optimize the procurement process by issuing the RFPs separately, but encouraging bidders to bundle services wherever advantageous to the State. This strategy will allow vendors to focus on core competencies while also enhancing bidder creativity in responses by facilitating the ability to bundle services for better solutions and better price points. The three proposed RFPs include the following:

- Transport Services – covering the backbone, network access, and internet access environments
- Equipment – including all necessary equipment for network infrastructure (routers, switches, etc.)
- Wireless Services – including broadband data service and any equipment, as well as cellular telephone service and the purchase of cell phones and accessories

The following timeline outlines the major activities that would be undertaken in conjunction with the recommended procurement strategy. The overall timetable is quite aggressive and will require diligent project management and timely turnaround of various documents during the review cycle with the State.

DRAFT Timeline

ACTIVITY	***ESTIMATED TIME***	***START DATE***	***COMPLETION DATE***
Phase II - Procurement Support	**149d**	**Mon 5/9/05**	**Wed 11/30/05**
Generate Request for Proposals (RFP)	**71d**	**Mon 5/9/05**	**Mon 8/15/05**
Deliver RFP outlines to State	1d	Mon 5/9/05	Mon 5/9/05
Review existing RFPs for possible reuse	5d	Mon 5/9/05	Fri 5/13/05
Create functional requirements specifications	10d	Mon 5/10/05	Fri 5/20/05
Create draft RFPs	27d	Mon 5/16/05	Tue 6/21/05
Transport Services	20d	Mon 5/16/05	Fri 6/10/05
Equipment	12d	Wed 5/25/05	Fri 6/10/05
Wireless Services	19d	Mon 5/25/05	Tue 6/21/05
Deliver draft RFPs to State	1d	Wed 6/22/05	Wed 6/22/05
State reviews RFPs provides comments	5d	Thu 6/23/05	Wed 6/29/05
"Revise RFP, review, and complete "	5d	Thu 6/30/05	Wed 7/6/05
Deliver Final RFPs to State	1d	Thu 7/7/05	Thu 7/7/05
Transport Services RFP released	1d	Fri 7/8/05	Fri 7/8/05
Equipment RFP released	1d	Fri 7/8/05	Fri 7/8/05
Wireless Services RFP released	1d	Mon 8/15/05	Mon 8/15/05
Transport & Equipment RFPs released by State	**77d**	**Fri 7/8/05**	**Fri 10/21/05**
Equipment bidder questions due	6d	Fri 7/8/05	Fri 7/15/05
Transport Services RFP Bidder's Conference	1d	Fri 7/22/05	Fri 7/22/05
Transport Services bidder questions due	3d	Mon 7/25/05	Wed 7/27/05
ITD Equipment responses posted	5d	Mon 7/18/05	Fri 7/22/05
ITD Transport Services responses posted	5d	Thu 7/28/05	Wed 8/3/05
Develop vendor evaluation criteria - All RFPs	10d	Thu 8/4/05	Tue 8/16/05
Develop proposal scoring mechanism - All RFPs	3d	Wed 8/17/05	Fri 8/19/05
Transport Services & Equipment proposals due	32d	Fri 7/8/05	Fri 8/19/05
Transport Services & Equipment RFPs AWARDED	***8d***	***Wed 8/24/05***	***Fri 9/2/05***
Pre-evaluation conference - Evaluation team	3d	Wed 8/24/05	Fri 8/26/05
Evaluation conference	2d	Mon 8/29/05	Tue 8/30/05
Transport & Equipment Vendor selections	1d	Tue 8/30/05	Tue 8/30/05
Evaluation report due	2d	Wed 8/31/05	Thu 9/1/05
Steering committee review & approval	1d	Fri 9/2/05	Fri 9/2/05
Transport Services & Equipment Vendors selected	1d	Fri 9/2/05	Fri 9/2/05
Transport Services & Equipment RFPs negotiations	***35d***	***Mon 9/5/05***	***Fri 10/21/05***
Negotiation preparation	5d	Mon 9/5/05	Fri 9/9/05
Transport Services contract negotiations	30d	Mon 9/12/05	Fri 10/21/05
Equipment contract negotiations	30d	Mon 9/12/05	Fri 10/21/05

Wireless Services RFP released by State	**78d**	**Mon**	**8/15/05**	**Wed**	**11/30/05**
Bidder's conference	1d	Wed	9/7/05	Wed	9/7/05
Wireless Services bidder questions due	2d	Thu	9/8/05	Fri	9/9/05
ITD Wireless Services responses posted	5d	Mon	9/12/05	Fri	9/16/05
Wireless Services proposals due	50d	Mon	8/15/05	Fri	10/21/05
Wireless Services RFP AWARDED	***11d***	***Mon***	***10/24/05***	***Mon***	***11/7/05***
Wireless Services responses reviewed	2d	Mon	10/24/05	Tue	10/25/05
Pre-evaluation meeting - Evaluation team	1d	Wed	10/26/05	Wed	10/26/05
Evaluation conference	2d	Thu	10/27/05	Fri	10/28/05
Wireless Services vendor selection	0d	Fri	10/28/05	Fri	10/28/05
Evaluation report due	5d	Mon	10/31/05	Fri	11/4/05
Steering committee review & approval	1d	Mon	11/7/05	Mon	11/7/05
Wireless Services vendor selected	1d	Mon	11/7/05	Mon	11/7/05
Wireless Services negotiations to signature	***17d***	***Tue***	***11/8/05***	***Wed***	***11/30/05***
Negotiation preparation	4d	Tue	11/8/05	Fri	11/11/05
Transport Services contract negotiations	13d	Mon	11/14/05	Wed	11/30/05

The following high-level descriptions of the RFP categories are provided for reference. The development of the RFP's will further expand the functional and technical requirements that are outlined here. Below is a timeline showing critical dates for each RFP.

	Transport RFP	Equipment RFP	Wireless RFP
Deliver RFP outline to State	05/09/2005 – 1day	05/09/2005 – 1day	05/09/2005 – 1day
Review existing RFPs for possible reuse	05/09/2005 – 5days	05/09/2005 – 5days	05/09/2005 – 5days
Create functional requirements specifications	05/10/2005 – 10days	05/10/2005 – 10days	05/10/2005 – 10days
Create draft RFP	05/16/2005 – 20days	05/25/2005 – 12days	05/25/2005 – 19days
Deliver draft RFP to State	06/22/2005	06/22/2005	06/22/2005
State reviews RFP provides comments	06/23/2005 – 5days	06/23/2005 – 5days	06/23/2005 – 5days
"Revise RFP, review, and complete "	06/30/2005 – 5days	06/30/2005 – 5days	06/30/2005 – 5days
Deliver Final RFP to State	07/07/2005	07/07/2005	07/07/2005
RFPs released to bidders	07/08/2005	07/08/2005	08/15/2005

Transport Services

Backbone

STAGENet 2006 is designed to connect eight of the major application centers throughout the State using WDM services. While it is not critical to build out all eight nodes immediately, the design goal is to provide a high degree of redundancy and fail-over using 802.17 RPR, as well as providing high-speed access to the universities, government agencies, political sub-divisions and K-12 schools. Beyond the existing nodes at Bismarck and Fargo that remain in the new configuration, this approach will require at least a third node, preferably a fourth, at Grand Forks and Minot. ITD expects the bidders to provide solutions that include a deployment plan for the entire network build-out that will complete within 18-24 months of award. The initial contract term to be requested will be for 5-7 years. However, ITD will entertain a 10 year commitment with the right price points and scalability. Current requirements will include price points and availability for clear channel 2.5 and 10 Gigabit wavelengths, with desired scalability beyond 10, to possibly 40 Gigabit, especially for the later years of the contract, providing the technology is capable of full scale deployment. Incremental pricing should also be included for all services requested in the RFP. ITD will be looking for pricing for unmanaged network services but should entertain a service provider's managed services solution. In an effort to understand the different price points throughout the network, pricing should be requested from node to node. Mandatory requirements will include an in-state NOC supporting an in-state provider network. The resulting network must incorporate non-collapsed, physical diversity with no out-of-state backhauling. ITD maintains a strong preference to lease clear channel services and would like pricing for both protected and unprotected wavelengths.

Network Access

E-Rate funding for K-12 schools within the state is a primary business driver with a desire to replace the current postalized pricing structure with a two-tiered pricing structure allowing for both rural and urban pricing. The design goal is to provide anytime/anywhere connectivity throughout the state by providing access from any established STAGENet backbone node to any outlying central office (CO), as well as the aggregation of available services offered by that CO. These access services could include DSL, cable, wireless, point-to-point, and/or additional fiber extensions available from the carrier as well as private entrance capabilities for third party fiber. The backbone design above is designed to facilitate high-speed connectivity to as much of the state as possible as well as enabling a direct peering arrangement by co-locating with the service provider(s). The State should request the co-location solution to contain any last-mile costs. By directly connecting at the edge of the network, STAGENet 2006 would obtain wire speed data transfer thereby enhancing network performance. Direct trunking (preferably with flat-rate pricing) from the CO to STAGENet 2006 would also allow for direct high-speed access connecting spurs and remote locations in the network node cities. Ethernet connection at the CO would provide for additional services, including a meet point for the local service provider's VoIP or IP Centrex service to the State's IP telephony backbone. As part

of the provider's solution, the State must ask for the escalation process and the ability for the provider to be the Single Point of Contact (SPOC) for all of the State's networking troubles thereby eliminating finger pointing between vendors.

Internet Access

The State of North Dakota connects to the Internet in order to provide information services to its constituency, along with interacting and exchanging data among state agencies and other states. The State also maintains their own web and email servers along with any other necessary services such as security, firewalls, and DNS/DHCP servers. The existing infrastructure consists of dual fully provisioned (622Mbps) ATM Packet Over SONET OC-12 circuits, one from Bismarck and the other from Fargo, to physically redundant locations of the same Tier One ISP. Service is physically redundant using diverse paths to the ISP. ITD requires true unfeathered private access for use as part of the newly designed fail-over strategy and would encourage an internet solution that is bundled with other transport service(s).

Equipment

Background:

Currently, the State's two-node backbone is connected by multiple OC-3s between Bismarck and Fargo using Cisco 7000 series hardware. These nodes duplicate the State's services and provide backup in case of failure. The STAGENet 2006 design is built around an eight-node high-speed (1 – 10 Gigabit Ethernet) backbone using WDM services, providing connectivity via alternate technologies to the more than five hundred locations across the state. These sites are primarily connected with either ATM service or gigabit fiber links. Services also include DSL/cable, wireless and satellite connectivity. The state manages the deployment of customer premises equipment throughout the state, which is currently Cisco. ITD also maintains a spares inventory to facilitate quick turnaround for parts replacement.

Infrastructure components

The State should continue to request pricing based on discounts off manufacturer list prices for all hardware, software, installation and maintenance. In-state spares and software maintenance contract should also be included. The State should not be opposed to awarding the maintenance contract separately from the equipment contract, but should not discourage bundling to achieve a better price point. Pricing should be requested on a per-unit basis and should be kept separate from installation and support costs. Maintenance costs must include software upgrades as well as both term and per-incident pricing options.

Wireless Services

Background:

The current STAGENet infrastructure includes a small number of sites connected by both wireless and satellite technologies. A number of state and local government agencies are currently using a broad range of wireless solutions to support an increasing number of mobility requirements. Combined with an increasingly mobile workforce, it is expected that both wireless, and to a lesser degree satellite, will become key components of STAGENet 2006 in the not too distant future.

Wireless Network

ITD would like to provide network access to the most rural locations throughout the state by enabling broadband wireless services. The desired wireless solution must provide broadband bandwidth, VPN capability and statewide coverage for numerous services to the many different types of devices in the field, regardless of time or location. By leveraging existing tower and building infrastructures currently owned by the Department of Transportation, and combining with the more than 2000 cellular phones currently under contract, the State hopes to provide enough incentive to attract provider investment in the state of North Dakota, beginning with the State as an anchor tenant.

A mandatory feature of this RFP would be a provider deployment plan that would include, at minimum, the specified backbone node cities for year one and a statewide deployment plan enabling wireless access to as many of the 210 communities statewide as feasible. It is felt that a single provider would best accomplish statewide anytime/anywhere connectivity with a seamless solution for both wireless voice and data via technologies such as EvDO and cellular. Wireless data rates should be within the 400 – 700 Kbps range, and burstable to 2.4 Mbps. A flat-rate/unlimited usage pricing structure should be requested for both the voice and data technologies with the cellular contract, available for transition by July 2006. Requirements should include QoS and VPN capabilities to allow for voice, video and data integration. Statewide network access would then be enhanced with strategically placed network access points (NAPs) on the STAGENet 2006 high-speed backbone connecting the wireless network to all services throughout the state.